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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,421	04/01/2004	Pascal Scaramuzzino	AD6920USNA	8852

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E I DU PONT DE NEMOURS AND COMPANY  
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WILMINGTON, DE 19805

EXAMINER
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HAIDER, SAIRA BANO

ART UNIT	PAPER NUMBER
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1796

NOTIFICATION DATE	DELIVERY MODE
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11/24/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/816,421	<b>Applicant(s)</b> SCARAMUZZINO, PASCAL	
	<b>Examiner</b> SAIRA HAIDER	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. NOTE: The amendment submitted is considered non-compliant with 37 CFR 1.121 because applicant has failed to provide a complete listing of all the claims ever presented. However in order to expedite prosecution a non-compliant has not been issued. Applicant should submit a complete listing of all the claims presented.

#### ***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (GB 2,091,274) in view of Flexman (US 5,318,813).
4. Suzuki discloses a process of treating polyacetal articles, wherein polyacetal resin plates are surface treated with an acidic solution, and then a thermoplastic paint is applied to the treated surface (page 1, lines 8-21).
5. Suzuki discloses that the surface treatment of the polyacetal articles using the acid solution is very effective in promoting strong adhesion of an undercoat to the articles (page 1, lines 19-21). In reference to the limitations of claims 11-13 regarding surface treatment, Suzuki discloses that the acidic solution is an aqueous solution of one or more inorganic acids, and one or more organic acids. Examples of suitable inorganic acids include hydrochloric acid, sulphuric acid, phosphoric acid and mixtures thereof, and an example of a suitable organic acid includes acetic acid (page 1, lines 22-26; claim 4). Hence in view of the forgoing, Suzuki would readily envisage utilizing of an acid solution comprising the claimed mixture of hydrochloric acid, sulphuric acid, phosphoric acid and acetic acid. Surface treatment of the polyacetal article of Suzuki with the acid solution is inherently considered

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etching, wherein since the process of Suzuki is identical or similar to the process claimed, it can be considered as etching.

6. Suzuki discloses that after surface treatment of the polyacetal article with the acidic solution, the treated article is further coated with an undercoat of a paint, such as a urethane paint (EXP 1245) (page 1, lines 11, 58-60). Wherein Suzuki would readily envisage dipping the substrate in paint in order to apply it, since dipping is the method utilized in the other process steps. In reference to claim 16, Suzuki discloses that after painting the treated article with the undercoat, it is coated with a top layer, which was cured via heat (page 1, line 64 to page 2 line 1).

7. In reference to the polyacetal article, Suzuki discloses that the term “polyacetal” includes any grade of polyacetal homopolymers, polyacetal copolymers having different compositions, and polyacetal homopolymers or copolymers modified with various kinds of compounds.

8. It is noted that it appears that Suzuki does not distinctly disclose the presence of the claimed thermoplastic non-polyacetal resin. Hence attention is directed to the Flexman reference which discloses the formation of a blend comprising 40-98 wt% of polyoxymethylene (a polyacetal), 1-40 wt% of a thermoplastic polyurethane, and 1-59 wt% of at least one amorphous thermoplastic polymer such as a polyamide (abstract; col. 12, lines 42 to col. 14, lines 54). Since the polyamide is amorphous it does not have a distinct melting point (col. 9, lines 60-63). In reference to the claimed limitation regarding the blend of first and second polyamides, Flexman discloses the inclusion of at least one amorphous thermoplastic polymer such as a polyamide, thus the reference would readily envisage the inclusion of two polyamides. In reference to the claimed amounts, it would have been obvious to one of ordinary skill in the art to use equivalent amounts of the two polyamides. The blend composition of Flexman possesses a useful balance of properties, such as stiffness, elongation and toughness (col. 4, lines 9-31). Furthermore, shaped articles can be formed from the blend via

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molding and then post treated by painting col. 21, lines 16-26). Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the polyacetal polyamide blend of Flexman for the polyacetal resin of Suzuki in order to use a resin with improved stiffness, elongation and toughness.

9. In reference to the claimed melt viscosity of the polyamides, Flexman discloses that U.S. Pat. No. 4,410,661 describes useful amorphous thermoplastic polyamides (col. 12, lines 42-44). Flexman discloses that the melt viscosities of the amorphous polyamides at 300°C as less than 50,000 poise, more preferably less than 20,000 poise at a shear strength of 105 dynes/cm<sup>2</sup> (col. 13, lines 41-50). It is noted that applicant's have claimed that the polyamides have a melt viscosities of the amorphous polyamides at 200°C as less than 50,000 poise at a shear strength of 105 dynes/cm<sup>2</sup> (claim 10) and in applicant's specification (pages 11-12), applicant has stated that the polyamides having such a melt viscosity can be prepared using the method described in U.S. Pat. No. 4,410,661. Since the prior art reference and applicant's specification describe the same amorphous polyamides formed using the identical chemical structures in the same process, the property (melt viscosity) applicant discloses and/or claims is necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). The burden shifts to the applicant to show an unobvious difference. Note that because the reference does not expressly disclose or address the properties of the claimed invention, does not mean that the properties are not inherently disclosed. Disclose the same compound(s) inherently discloses the corresponding properties. The references cannot possibly disclose or address all of the properties, but implicitly all of the properties are present.

***Response to Arguments***

10. Applicant's arguments filed 07/10/2009 have been fully considered but they are not persuasive.

11. Applicant has argued that Flexman fails to disclose the claimed blend of first and second polyamides, in response the Flexman reference explicitly notes that the at least one amorphous thermoplastic polymer is a polyamide (claims 1 and 6), wherein the amorphous thermoplastic polymer can be a blend of more than one amorphous thermoplastic polymer (col. 10, lines 46-49). Accordingly, the reference readily envisages the inclusion of two amorphous thermoplastic polyamides.

12. Applicant has argued that there is no teaching of improved adhesion or improved surface coatings being derived from the compositions of Flexman. In response the motivation for the inclusion of the composition of Flexman as the substrate in the Suzuki reference is provided by the fact that Flexman recognizes the composition as possessing a useful balance of properties, such as stiffness, elongation and toughness (col. 4, lines 9-31). Accordingly, utilization of a composition possessing such useful properties would have been obvious to one skilled in the art.

***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on

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the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAIRA HAIDER whose telephone number is (571)272-3553. The examiner can normally be reached on Monday-Friday from 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James J. Seidleck/  
Supervisory Patent Examiner, Art Unit 1796

Saira Haider  
Examiner  
Art Unit 1796